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An improved instrume

# AN IMPROVED INSTRUMENT FOR MAINTAINING AN ORAL AIR-WAY, DURING GENERAL ANESTHESIA

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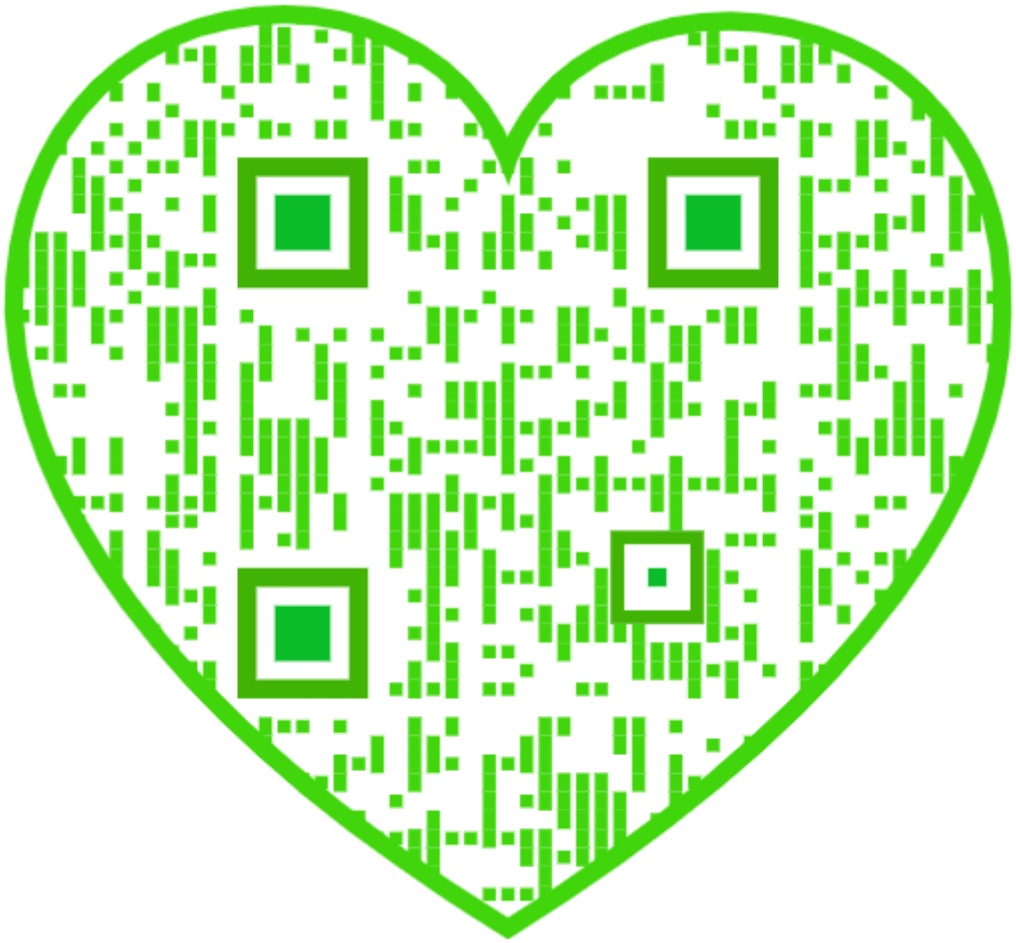

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# AN IMPROVED INSTRUMENT FOR MAINTAINING AN ORAL AIR-WAY, DURING GENERAL ANESTHESIA.

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INSTRUCTOR IN ANESTHESIA, UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE; ANESTHETIST TO BELLEVUE AND ALLIED HOSPITALS, HARLEM DIVISION, LUTHERAN, KNICKERBOCKER, AND LYING-IN HOSPITALS.

In previous articles* I mentioned the importance of keeping a free oral air-way during general anesthesia and described my invention for that purpose. Since then I have changed the instrument, making it smaller and stronger. Inasmuch as all anesthetists fully agree, which is saying much, that too great emphasis cannot be placed upon the necessity of keeping a free oral air-way for certain conditions, I feel justified in harping on my hobby and have succeeded in making a more perfect device. During the last few years numerous tubes have appeared for the same purpose made by Hewitt, Connell, Ferguson, Coburn, Flagg, and Pinneo.

In the second of the articles above mentioned I

*Helps in Surgical Anesthesia, *Journal A. M. A.*, November 23, 1912, p. 1853. A Controller of the Tongue and Palate During General Anesthesia, *Journal A. M. A.*, May 22, 1915, p. 1757.

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call my instrument "A Controller of the Tongue and Palate During General Anesthesia." While this is possibly more correct than the new title, it is lengthy and ambiguous.

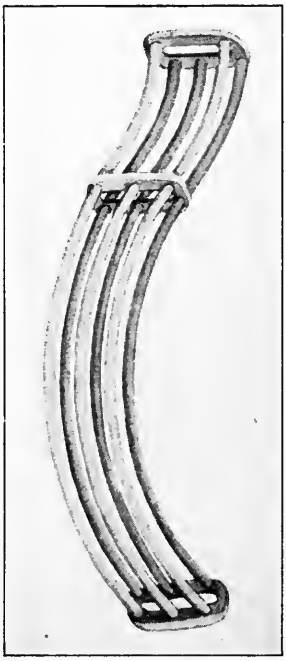

FIG. 1.—Lumbard's air-way; the lower is the pharyngeal end. Two-thirds actual size.

My latest instrument (see Fig. 1) for maintaining an artificial oral air-way, is constructed as follows: a double row of three curved wires running parallel, about an eighth of an inch apart, are firmly

held together by three crossbands. The instrument is 4½ inches long, ½ inch in width and ⅛

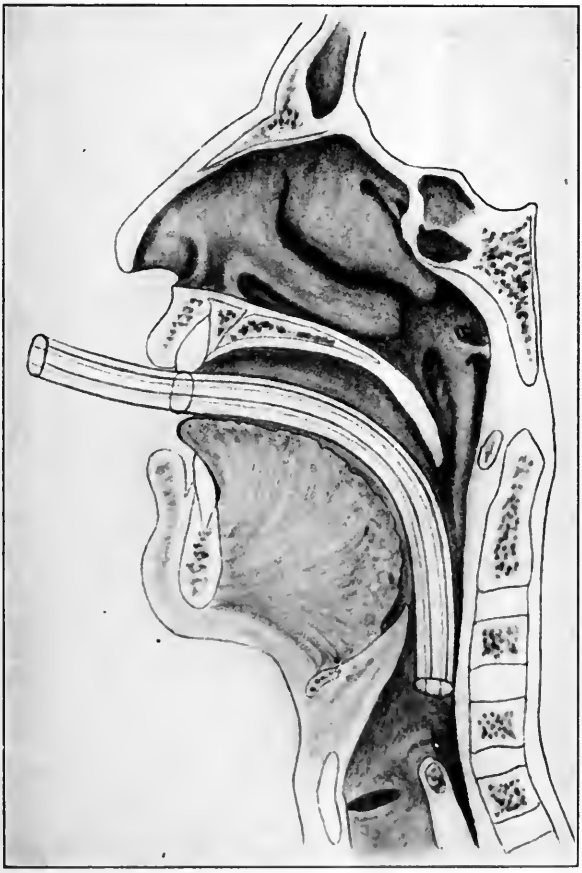

FIG. 2.—Lumbard's air-way in situ.

inch in thickness. It contains nine pieces and is nickel plated. Properly made, it will not rust nor come apart when sterilized.

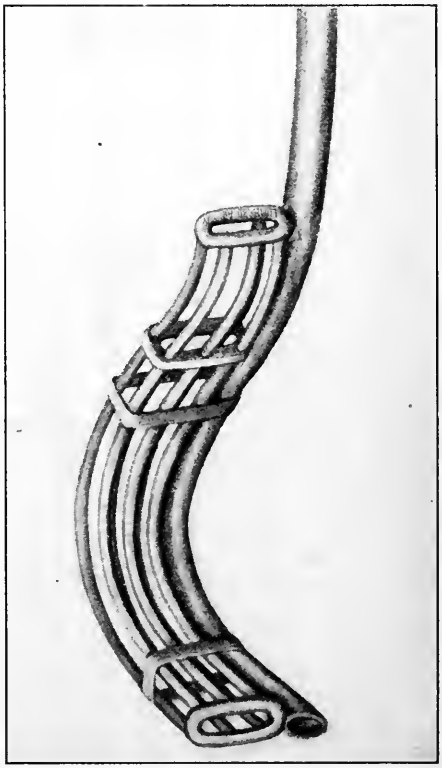

FIG. 3.—Lumbard's air-way with rubber tube attached for the insufflation method or oxygen. Two-thirds actual size.

No attempt should be made to introduce this instrument until the patient is well anesthetized, for

the pharynx is one of the last reflexes to yield to general anesthesia and the introduction of the instrument too soon is apt to cause gagging. The instrument is easily introduced by inserting the pharyngeal end between the tongue and the soft palate until it rests in the pharynx (see Fig. 2). Should the respirations become noisy this annoyance can be overcome by extending the head backward. Sometimes the noisy breathing, when the tube is in situ, is indicative of a light anesthesia. In such cases it is better to take the tube out and deepen the anesthesia before replacing it. A few cases will do better if traction on the tongue is made before the air-way tube is introduced; in such cases do not use the tongue forceps, but always make traction with a piece of dry gauze held between the fingers. A swollen tongue from crude instrumentation will often cause the patient more trouble than the operation itself.

The instrument does not interfere with any face mask nor with any method for administering a general inhalation anesthetic. Not only does this air-way obviate the task of holding the jaw forward, but is useful in the aged where the lips obstruct the air passage.

I have often noticed when instructing interns and students that they are quick to see and appreciate the advantages of this instrument. I would earnestly recommend the use of this tube in all abdominal operations, especially when in the Trendelenburg position; also when there is any obstruction to free respiration during anesthesia. Keeping the instrument in situ after the operation, until swallowing returns, will greatly hasten the recovery from the anesthetic. I consider an instrument for maintaining an artificial oral air-way one

of the most important items of an anesthetist's outfit.

A free oral air-way is indicated in the following conditions: When there is (1) cyanosis due to obstructed nasal or oral breathing; (2) unrelaxed muscular condition, due to faulty breathing; (3) enlarged tongue or falling back of the tongue, especially when the patient is in the Trendelenburg position.

When using the insufflation method or oxygen, a rubber tube can be easily attached to the side of the instrument by a rubber band or string. (See Fig. 3.)

The insufflation method and oxygen can also be used with Lumbard's vapor mask, with the air-way tube in situ.

The substitution of free oral respiration for imperfect nasal or oral respiration will, in a great majority of cases, immediately be followed by slower and quieter breathing, improvement in color, and greater muscular relaxation; in fact, a much improved type of anesthesia is the result.

The following are the advantages of this tube, each of which removes several disadvantages in similar instruments: (1) It will not clog with mucus, thus eliminating the chief defect of other instruments. (2) It is easily and quickly inserted. (3) It is easily kept in position, whereas the weight of a solid tube often displaces it. (4) It cannot be compressed by the teeth and gums. (5) It will not conduct a fluid anesthetic to the pharynx, an accident liable to occur with other tubes. (6) It may also be used on children as well as adults. (7) It is quickly cleaned and sterilized, because it is open on all sides. This tube has well been called the "sine qua non" of the anesthetist.

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